REMARKS

Claims 1-13 are pending in the present application. Claims 1, 6 and 13 are the independent claims.

Claims 1 and 6 have been amended, and claim 13 has been added. No new matter is believed to have been added. Proper support for the amendments to claims 1 and 6 can be found in the specification at least at paragraphs [0030] through [0034].

Claim 13 has been added. Proper support for newly added claim 13 can be found in the specification at least at paragraph [0033]. Claim 13 distinguishes from the prior art in that all of the plurality of sectors and their corresponding identifiers are alternately arranged to form a recording block. In other words, the complete identifier of each sector is arranged at the top of the sector. Noda fails to teach or suggest such novel features. Noda, for example, teaches arranging a plurality of sectors and identifiers in a column direction, however, these sectors correspond to a single error correction block (see FIG. 6 of Noda and column 7, lines 27-33). Contrary to Noda, claim 14 teaches arranging a plurality of sectors from a first and a second ECC block. Furthermore, all of the sectors from the ECC blocks and a corresponding complete identifier of each sector are alternately arranged to form a recording block. Noda on the other hand teaches separating each of the identifiers from the plurality of sectors into various portions (FIGS. 14 and 16A-16C, column 13, lines 16-54). Accordingly, claim 13 distinguishes from the prior art in at least these aspects.

INTERVIEW SUMMARY AND STATEMENT OF SUBSTANCE

On June 5, 2006 an interview was conducted between the Examiner and Applicants' Representative. During the interview, various aspects of the invention and the independent claims were discussed as well as their differences with the reference cited in the Office Action, Noda. No agreement was reached.

DOUBLE PATENTING

Claims 1-10 are provisionally rejected on the ground of nonstatutory double patenting over claims 1-10 and 34-43 of copending Application No. 10/124,366.

Since claims 1-10 of the instant application have not yet been indicated as allowable, it is believed that any submission of a Terminal Disclaimer or arguments as to the non-obvious nature of the claims would be premature (see MPEP 804). As such, it is respectfully requested that Applicants be allowed to address any provisional obviousness-type double patenting issues remaining once the rejections of the claims under 35 U.S.C. §102 are resolved.

Claims 11 and 12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 and 34-43 of copending Application No. 10/124,366 in view of Yonemitsu; Jun et al. (US 5,793,779 A, hereafter referred to as Yonemitsu).

Since claims 11 and 12 of the instant application have not yet been indicated as allowable, it is believed that any submission of a Terminal Disclaimer or arguments as to the non-obvious nature of the claims would be premature (see MPEP 804). As such, it is respectfully requested that Applicants be allowed to address any provisional obviousness-type double patenting issues remaining once the rejections of the claims under 35 U.S.C. § 103 are resolved.

Claims 1-10 are provisionally rejected on the ground of nonstatutory double patenting over claims 1-11 of copending Application No. 10/828,297.

Since claims 1-10 of the instant application have not yet been indicated as allowable, it is believed that any submission of a Terminal Disclaimer or arguments as to the non-obvious nature of the claims would be premature (see MPEP 804). As such, it is respectfully requested that Applicants be allowed to address any provisional obviousness-type double patenting issues remaining once the rejections of the claims under 35 U.S.C. §102 are resolved.

Claims 11 and 12 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-11 of copending Application No. 10/828297 in view of Yonemitsu.

Since claims 11 and 12 of the instant application have not yet been indicated as allowable, it is believed that any submission of a Terminal Disclaimer or arguments as to the

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non-obvious nature of the claims would be premature (see MPEP 804). As such, it is respectfully requested that Applicants be allowed to address any provisional obviousness-type double patenting issues remaining once the rejections of the claims under 35 U.S.C. § 103 are resolved.

REJECTIONS UNDER 35 U.S.C. §102:

Claims 1-10 are rejected under 35 U.S.C. §102(e) as being anticipated by Noda; Chosaku (U.S. Patent 6,175,686 B1 hereafter Noda).

Regarding the rejection of independent claim 1, it is noted that independent claim 1 recites a method of recording main data on an optical information recording medium, the method comprising: error correction code (ECC)-encoding the main data to generate first and a second ECC blocks, wherein each of the ECC blocks comprises a plurality of sectors having corresponding identifiers; and extracting and arranging the identifiers from the first and second ECC blocks to generate a recording block such that **every identifier of** the **first ECC block and every identifier of** the **second ECC block** are in the **recording block**.

Applicants respectfully assert that Noda fails to disclose each of these features.

In detail, Noda discloses an error correction block 23 of extended format constituted by 32 successive logical sectors 11, which is twice that of the error correction block 13 of the standard format (column 12, lines 39-45, FIG. 14). Noda further discloses that the error correction block 23 upon data rearrangement in units of rows is divided into 16 portions in units of 13 rows. That is, the error correction block 23 is divided into recording sectors 27 of the extended format, each of which consists of 182x2 bytes. Each recording sector 27 is constituted by two recording sub-sectors 27A and 27B. Data 27a of one row is extracted from the recording sector 27, that is, data of one row of the recording sub-sectors 27A and 27B is synthesized and extracted as the data 27a. The data 27 is byte-interleaved to alternately arrange the data of the respective inner codes and the byte-interleaved data is divided into first and second halves each of 182 bytes, thereby generating two recording blocks 28 of the extended format. As result, each recording block 28 of the extended format has a sequence in which data belonging to the respective error correction sub-blocks 23A and 23B are aligned in units of bytes. The recording block 28 is twice as long as the recording block 18 of the standard format (column 13, lines 1-54). In other words, Noda discloses dividing the data 27a into first and second halves (FIG.

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16A), interleaving the data of the two halves and generating **two recording blocks** (FIG. 16B, item 28) from an ECC correction block having extended format (column 13, lines 32-40). Each recording block taught by <u>Noda</u>, has only a partial amount of identifiers, since each recording block has only half the identifiers of each ECC block.

Accordingly, Applicants respectfully note that <u>Noda</u> fails to teach or suggest that **every identifier of the first ECC block and every identifier of the second ECC block are in the recording block**, as recited in independent claim 1, since <u>Noda</u> forms two recording blocks, and each recording block has only a portion of the interleaved data from the ECC correction block. As a result, the rejection of claim 1 under 35 U.S.C. §102(e) should be withdrawn because <u>Noda</u> fails to teach or suggest each feature of independent claim 1.

Furthermore, Applicants respectfully assert that dependent claims 2-5 are allowable at least because of their dependence from claim 1, and because they include additional features which are not taught or suggested by the prior art. Therefore, it is respectfully submitted that claims 2-5 also distinguish over the prior art.

Regarding the rejection of independent claim 6, it is noted that independent claim 6 recites a method of recording main data on an optical information recording medium, the method comprising, amongst other novel features, **every identifier of the first ECC block and every identifier of the second ECC block is arranged in the recording block**.

Applicants respectfully assert that <u>Noda</u> fails to disclose each of these features.

As noted above, <u>Noda</u> discloses generating **two recording blocks** (FIG. 16B, item 28) from an ECC correction block having extended format, wherein each recording block has a portion of interleaved data from the ECC correction block having extended format (see FIGS. 16A through 16C and column 13, lines 32-40). In other words, each recording block taught by <u>Noda</u> has only a partial amount of identifiers. Contrary to <u>Noda</u>, independent claim 6 recites that **every identifier of the first ECC block and every identifier of the second ECC block is arranged in the recording block**.

Accordingly, Applicants respectfully assert that the rejection of claim 6 under 35 U.S.C. §102(e) should be withdrawn because <u>Noda</u> fails to teach or suggest each feature of independent claim 6.

Furthermore, Applicants respectfully assert that dependent claims 7-10 are allowable at least because of their dependence from claim 6, and because they include additional features which are not taught or suggested by the prior art. Therefore, it is respectfully submitted that claims 7-10 also distinguish over the prior art.

REJECTIONS UNDER 35 U.S.C. §103:

Claims 11 and 12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Noda in view of Yonemitsu.

Claims 11 and 12 depend from independent claim 6, and as noted above, Noda fails to teach or suggest the features recited in independent claim 6.

Yonemitsu discloses an optical disk, a method and an apparatus for recording/reading data from/on the disk (column 2, lines 46-48). Yonemitsu further discloses that the error correction code used is a long distance code having at least eight parity symbols. ECC techniques which have been used heretofore have relies upon the so-called short distance codes in which a block of data is divided into two sub-blocks, each sub-block being associated with a number or parity symbols, such as 4 parity symbols. In the long distance code, the block of code is not sub-divided; and as a result, all 8 erroneous data symbols, if present in the long distance coded data, can be corrected (column 3, lines 11-28). In other words, Yonemitsu fails to teach or suggest that **every identifier of** the **first ECC block and every identifier of** the **second ECC block is arranged in** the **recording block**, as recited in independent claim 6.

Accordingly, Yonemitsu fails to cure the deficiencies of Noda, and thus neither Noda nor Yoremitsu, whether taken singly or combined, teach or suggest each feature of independent claim 6 from which claims 10 and 11 depend.

Therefore, Applicants respectfully assert that the rejection of claims 11 and 12 under 35 U.S.C. §102(e) should be withdrawn.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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